

Appn. of: BONATTI, Davide et al.
Appn. No.: 10/668,180

AMENDMENTS TO THE CLAIMS

Claim 1 (Currently amended): A transfer unit for containers, rotatable about a vertical axis and comprising:

- a vertical shaft extending upward from a bed concentrically with the vertical axis;
- at least one set of means by which to take up and hold a relative container leaving a first conveyor positioned at a first height;
- said holding means being associated with respective means, slideable vertically in relation to a frame, which comprise a slide carrying said holding means;
- feed means by which the holding means are caused to advance along a predetermined path extending at least between the first conveyor and a second receiving conveyor positioned at a second height;
- said feed means comprising said frame, said frame constructed and arranged to be set in motion along said predetermined path consisting of a closed loop;
- means operating in conjunction with the holding means, by which the height of the selfsame holding means is varied during the course of their passage along the predetermined path; wherein said means operating in conjunction with the holding means for varying the height of the holding means includes means by which to guide the movement of the slides comprising a generally tubular element that presents a C-shaped cross-sectional profile, a longitudinal opening, and is centered on the vertical shaft, the means by which to guide the movement of the slides being replaceable to vary the movement of the slides.

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Claim 2 (Original) A unit as in claim 1, wherein holding means comprise means by which to grip the neck of a container.

Claim 3 (Cancelled)

Claim 4 (Cancelled)

Claim 5 (Previously presented): A unit as in claim 1, comprising a plurality of holding means.

Claim 6 (Previously presented): A unit as in claim 5, wherein the frame comprises a plurality of pairs of vertical guide elements each associated with respective holding means incorporating gripper means.

Claim 7 (Previously presented): A unit as in claim 6, wherein said shaft is aligned on said vertical axis, supports and drives the frame, the frame comprising a disc element, mounted to the top end of the shaft and carrying vertical guide elements equispaced angularly around the periphery.

Claim 8 (Previously presented): A unit as in claim 7, wherein the guide means comprises cam profile means.

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Claim 9 (Original): A unit as in claim 8, wherein cam profile means comprise a first track and a second track substantially complementary one to another, extending in combination around the closed loop path followed by the holding means.

Claim 10 (Previously presented): A unit as in claim 9, wherein the first track extends around the cylindrical outer surface presented by said tubular element of C-shaped cross section; the tubular element comprising coupling and fastening means operating in conjunction with fastening means afforded by the shaft, whilst the second track is presented by a sector appearing as an arc to a circle positioned with the concave side offered to the lateral opening in the C-shaped tubular element.

Claim 11 (Original): A unit as in claim 10, wherein the width of the opening presented by the C-shaped tubular element is such that the selfsame element can be distanced from the vertical shaft by displacement in a radial direction.

Claim 12 (Previously presented): A unit as in claim 1, wherein the slide incorporates engagement means designed to interact with a cam profile means.

Claim 13 (Previously presented): A unit as claim 9, wherein engagement means comprise a first roller and a second roller passing respectively along the first track and the second track.

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Claim 14 (Previously presented): A unit as in claim 1, wherein the slide comprises a pair of pivots supporting and enabling the angular movement of a pair of jaws providing the gripper means.

Claim 15 (Original): A unit as in claim 14, wherein at least one of the jaws is associated with respective actuating means designed to produce the opening and/or closing movement of the gripper means.

Claim 16 (Original): A unit as in claim 15, wherein the actuating means comprise a cam sector, and a following roller mounted to the end of an arm rigidly associated with one of the two jaws.

Claim 17 (Cancelled)

Claim 18 (Previously presented): A unit as in claim 8, wherein the slide incorporates engagement means designed to interact with the cam profile means.

Claim 19 (Previously presented): A unit as claim 12, wherein engagement means comprise a first roller and a second roller passing respectively along the first track and the second track.

Claim 20 (Previously presented): A unit as in claim 12, wherein the slide comprises a pair of pivots supporting and enabling the angular movement of a pair of jaws providing the gripper means.